

Ancon EdjPro EPHIMax

Edge Lifting System

The optimum solution for heavy, plain and step-joint precast panels

The EdjPro EPHIMax Edge Lifting System has been specifically for the Australian construction industry. It is ideally suited for lifting heavy precast panels which typically have thicknesses of 150mm and above. The unique I-shaped anchor head combines maximum capacity and stiffness with a narrow anchor design for thin, heavily reinforced panels. As with all anchors in the Ancon EdjPro series, the EPHIMax complies with the latest revision of Australian Standard AS3850.



Ultra narrow, HI working load

- 15t WLL, 55mm wide anchor, 65mm recess
- For all panels from 125mm thickness

New I-beam head

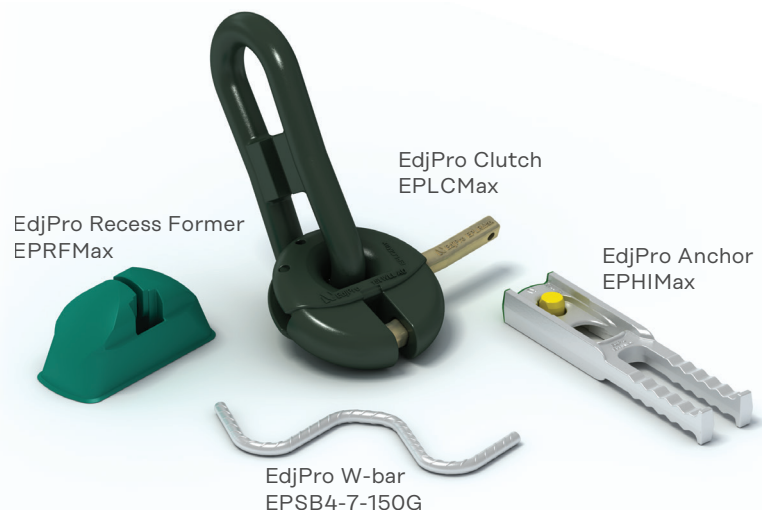
- Restricts clutch rotation
- The I-beam flanges provide a 'shear foot'
- Lowers the risk of concrete cracking and spalling

Plain & 'Step-Joint' Panels

- Perfect solution for step-joint, 'weather seal' panels
- Narrow shape for maximum edge distances
- EdjPro clutch clears the concrete when edge lifting
- Stronger performance: factory, transportation and erection

Safe

- 15t WLL when used with a 24mm tension bar
- Complies with AS3850.1:2015



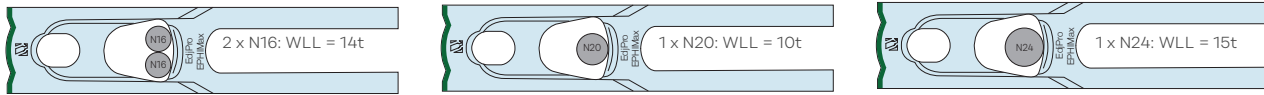
Ancon EdjPro EPHIMax

System Performance

Working Loads in Tension

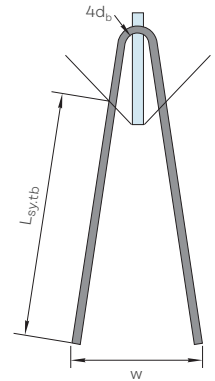
Anchor Code Colour	Tension bar	Recommended development length $L_{sy.tb}$ (mm)	Total cut length (mm)	Spread width W (mm)	WLL (tonnes)
EPHIMax Green	N16	496	1180	375	7
	2 x N16	496	1180	375	14
	N20	587	1460	455	10
	N24	880	1990	600	15

Note: An N16, 2 x N16, N20 or N24 tension bar may be used according to the required WLL. The development length for the tension bars are based on a concrete strength of 15MPa and a panel thickness of 125mm for N16 bars and 150mm for N20 and N24 bars.



Working Load Limits in Shear (tonnes)

Panel Thickness (mm)	Trimmer bar (perimeter bar)	Shear Reinforcement	Concrete strength at time of lift f_{lift}						
			12MPa	15MPa	20MPa	25MPa	30MPa	40MPa	
150	N16	Trimmer bar only	2.0t	2.25t	2.6t	2.9t	3.15t	3.65t	
		Trimmer bar + N12 Shear Bar	2.3t	2.55t	2.95t	3.3t	3.6t	4.2t	
175	N16	Trimmer bar only	2.25t	2.5t	2.9t	3.25t	3.55t	4.1t	
		Trimmer bar + N12 Shear Bar	2.55t	2.85t	3.3t	3.7t	4.05t	4.6t	
200	N16	Trimmer bar only	2.5t	2.8t	3.25t	3.6t	3.95t	4.6t	
		Trimmer bar + N16 Shear Bar	2.85t	3.2t	3.7t	4.1t	4.55t	4.6t	
225	N16	Trimmer bar only	2.8t	3.1t	3.6t	4.0t	4.4t	4.6t	
		Trimmer bar + N16 Shear Bar	3.2t	3.55t	4.1t	4.6t	4.6t	4.6t	
250	N16	Trimmer bar only	3.05t	3.4t	3.95t	4.4t	4.6t	4.6t	
		Trimmer bar + N16 Shear Bar	3.5t	3.9t	4.5t	4.6t	4.6t	4.6t	



Notes: Locate the edge trimmer bar on the EPHIMax anchor to control flexural cracking. We recommend using shear bars and / or shear reinforcement e.g. hooked or U bars to control shear cracking. The standard N12 shear bar is optimised for 150mm panels. N16 or multiple N12 shear bars with deeper embedment should improve crack control in thick panels (175-250mm).

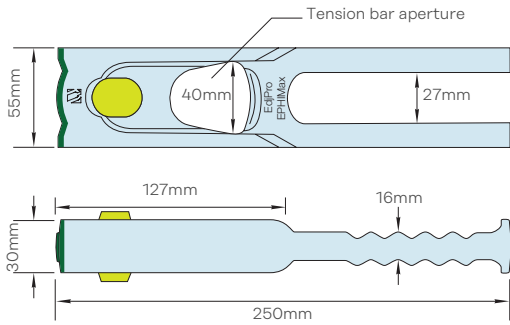
Exceeding the design loads may result in cracking or spalling. Some anchor deflection is normal, particularly at large sling angles.

For other panel thicknesses, please consult the Leviat technical team for design advice. The WLLs shown in the tables above are based on a minimum distance equal to the panel thickness between an anchor and any edge or penetration (e.g. a duct) and twice this distance between any two anchors.

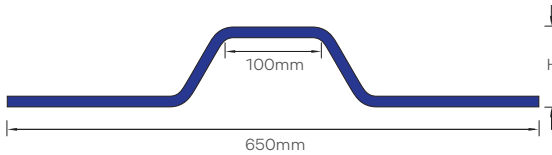
Ancon EdjPro EPHIMax

EdjPro EPHIMax Anchor

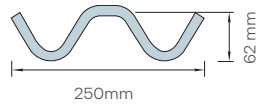
Narrow body and high capacity, perfect for thin panels.



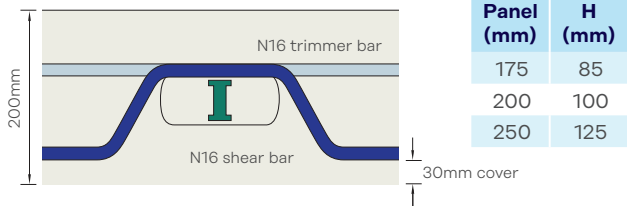
N16 Shear Bar with 30mm Cover



Standard HDG N12 'W' Shear Bar

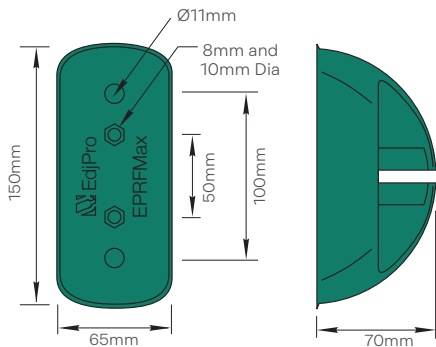


EPHIMax N16 Trimmer and N16 Shear Bar 200mm Panel

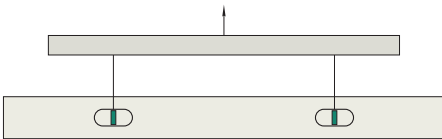


EdjPro Recess Former EPRFMax

Ultra narrow design, oil resistant synthetic rubber

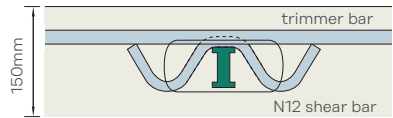


Preferred Rigging: Use a Beam to Minimise Stresses



A lifting beam rigged with vertical slings is always preferred i.e. sling angle = 0° minimises concrete stress in the thin edge. Always limit sling angles to 60° when lifting with or without a beam.

EPHIMax N16 Trimmer, EPSB4-7150G Shear Bar in 150mm Panel



Important! The EPHIMax must be installed with the EPRFMax recess and lifted with the EPLCMax clutch (or the compatible but now superseded EPNLC10). This system is not compatible with other components without written authorisation from Leviat.